CLAIMS

1. An information processing apparatus for performing at least one of a recording operation and a reproduction operation for an information medium having an information layer, the information processing apparatus comprising:

a plurality of light sources;

a convergence -lens for converging light emitted from the plurality of light sources onto the information layer of the information medium; and

a controlling means for controlling the plurality of light sources,

wherein the information medium further has a visual information layer capable of recording visually identifiable visual information, the visual information layer facing the information layer, and

the controlling means controls the plurality of light sources such that the plurality of light sources emit light simultaneously, when the visual information is recorded onto the visual information layer.

2. An information processing apparatus for performing at least one of a recording operation and a reproduction operation for an information medium having an information layer, the information processing apparatus comprising:

a plurality of light sources;

a convergence lens for converging light emitted from the plurality of light sources onto the information layer of the information medium; and

a controlling means for controlling the plurality of light sources,

wherein the information medium further has a visual information layer capable of recording visually identifiable visual information, the visual information layer facing the information layer, and

the controlling means controls the plurality of light sources such that the plurality of light sources emit light alternately, when the visual information is recorded onto the visual information layer.

3. An information processing apparatus according to any one of claims 1 and 2, wherein:

the plurality of light sources includes a first light source and a second light source, and

the information processing apparatus is configured to satisfy a relationship of $D1 \leq WD < D2$, when the visual information is recorded onto the visual information layer,

where WD denotes a distance between the convergence lens and a surface of the visual information layer facing the convergence lens, D1 denotes a distance between the convergence lens and a first converged light spot at which the light from the first light source is converged by the convergence lens such that a light intensity at a center of the converged light becomes maximum, and D2 denotes a distance between the convergence lens and a second converged light spot at which the light from the second light source is converged by the convergence lens such that a light intensity at a center of the converged light becomes maximum.

4. An information processing apparatus according to claim 3, wherein the information processing apparatus is configured such that the light emitted from the first light source enters the convergence lens as a

quasi-parallel light and the light emitted from the second light source enters the convergence lens as a divergent light or a converging light.

5. An information processing apparatus according to claims 1 to 4, wherein:

the plurality of light sources includes a first light source and a second light source, and

the information processing apparatus is configured to satisfy a relationship of NA1 > NA2 and PI > P2,

where NA1 denotes a numerical aperture of the convergence lens which converges light emitted from the first light source, P1 denotes a power for emitting light from the first light source, NA2 denotes a numerical aperture of the convergence lens which converges light emitted from the second light source and P2 denotes a power for emitting light from the second light source.

6. An information processing apparatus according to any of claims 1 to 5, wherein:

the plurality of light sources includes a first light source and a second light source, and

the information processing apparatus is configured to satisfy a relationship of $\lambda 1 < \lambda 2$ and P1 > P2,

where $\lambda 1$ denotes a central wavelength of the first light source, P1 denotes a power for emitting light from the first light source, $\lambda 2$ denotes a central wavelength of the second light source and P2 denotes a power for emitting light from the second light source.